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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,408	02/10/2000	Frederic Serre	A32979-070337.0181	3806
21839	7590	11/04/2004		
BURNS DOANE SWECKER & MATHIS L L P				
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EXAMINER				
SHOSHO, CALLIE E				
ART UNIT		PAPER NUMBER		
1714				

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/501,408

Applicant(s)

SERRE, FREDERIC

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 23-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. All outstanding rejections are overcome by applicant's response filed 8/17/04. It is noted that applicant's submission on 8/17/04 of an English translation of the foreign priority document previously submitted 2/10/00 perfects the foreign priority date.

The following rejection is non-final in light of the use of a new reference against the present claims, namely, Segatta et al. (U.S. 6,776,206), which was published after the mailing date of the previous office action.

**Claim Rejections - 35 USC § 103**

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 23-25 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al. (U.S. 6,776,206)

Segatta et al. disclose tire wherein the apex, i.e. portion of the tire which is located axially to the outer side of the carcass poly turn-up, comprises composition comprising 80-97 parts natural rubber or cis 1,4-polyisoprene, 20-200 phr carbon black, 5-25 phr precipitated silica, and additional diene elastomer. It is noted, for instance, that the amount of silica, i.e. 20 phr or 25 phr, is greater than the amount of carbon black, i.e. 20 phr, minus 5 phr wherein the total amount of carbon black and silica is thus, 40 phr or 45 phr (col.1, lines 9-13 and 20-22, col.2, lines 30-41, col.3, lines 45-49, and col.3, line 66-col.4, line 6).

The difference between Segatta et al. and the present claimed invention is the requirement in the claims of the surface area of the carbon black and the surface area of the silica.

JP 09302146, which is drawn to tire, disclose the use of composition for bead filler (a reinforcing layer found axially outside the turn-up portion of the carcass and extending radially from the bead core) comprising carbon black possessing surface area of 50-150 m<sup>2</sup>/g and silica possessing surface area of 210-300 m<sup>2</sup>/g. It is disclosed that if the surface area of the carbon black is less than 50 m<sup>2</sup>/g, there is poor hardness while if the surface area is greater the 150 m<sup>2</sup>/g, there is an increase in loss tangent. Further, it is disclosed that if the surface area of the silica is less than 210 m<sup>2</sup>/g, there is poor hardness, while if the surface area is greater than 300 m<sup>2</sup>/g, the composition is difficult to manufacture (paragraphs 10-11).

In light of the motivation for using carbon black and silica with specific surface area disclosed by JP 09302146 as described above, it therefore would have been obvious to one of ordinary skill in the art to use such carbon black and silica in the apex of the tire of Segatta et al. in order to produce tire with good hardness and low loss tangent that is easy to manufacture, and thereby arrive at the claimed invention.

4. Claims 26-27 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al. in view of JP 09302146 as applied to claims 23-25 and 29-31 above, and further in view of Takeichi et al. (U.S. 6,008,295).

The difference between Segatta et al. in view of JP 09302146 and the present claimed invention is the requirement in the claims of specific additional diene elastomer.

Takeichi et al., which is drawn to rubber compositions for tires, discloses the use of silicon or tin halide modified diene elastomer in order to produce a composition with superior fracture properties and low hysteresis loss (col.1, lines 19-22, col.2, lines 34-55, and col.6, lines 45-55).

In light of the motivation for using additional diene elastomer disclosed by Takeichi et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such diene elastomer in the tire of Segatta et al. in order to produce tire with superior fracture properties and low hysteresis loss, and thereby arrive at the claimed invention.

5. Claims 26, 28, 32, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al. in view of JP 09302146 as applied to claims 23-25 and 29-31 above, and further in view of Fukahori et al. (U.S. 5,844,050).

The difference between Segatta et al. in view of JP 09302146 and the present claimed invention is the requirement in the claims of additional diene elastomer that has been modified by branching agent such as divinylbenzene.

Fukahori et al., which is drawn to rubber composition, disclose a diene elastomer comprising a majority of cis-1,4-bonds, which is branched using divinylbenzene (col.9, lines 4-14, 32 and 46-50) in order to produce a composition with good abrasion resistance, fatigue resistance, and tensile properties (col.25, lines 26-36).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such diene elastomer in the tire of Segatta et al. in order to produce tire with good


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abrasion resistance, fatigue resistance, and tensile properties, and thereby arrive at the claimed invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
10/29/04